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## MEDICAL NEWS LETTER

Vol. 41

Friday, 1 March 1963

No. 5

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Policy

The U. S. Navy Medical News Letter is basically an official Medical Department publication inviting the attention of officers of the Medical Department of the Regular Navy and Naval Reserve to timely up-to-date items of official and professional interest relative to medicine, dentistry, and allied sciences. The amount of information used is only that necessary to inform adequately officers of the Medical Department of the existence and source of such information. The items used are neither intended to be, nor are they, susceptible to use by any officer as a substitute for any item or article in its original form. All readers of the News Letter are urged to obtain the original of those items of particular interest to the individual.

Change of Address

Please forward changes of address for the News Letter to: Commanding Officer, U. S. Naval Medical School, National Naval Medical Center, Bethesda 14, Md., giving full name, rank, corps, and old and new addresses.

The issuance of this publication approved by the Secretary of the Navy on  
28 June 1961.

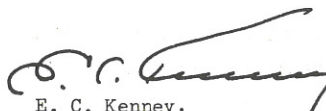


## MOTOR VEHICLE ACCIDENTS - 1961

Foreword

For several years the Navy and Marine Corps have had vigorous motor-vehicle safety programs in operation. Motor-vehicle-accident statistics for 1961 indicate that these efforts are achieving a measure of success. Several indices show improvement over previous years. However, these hard-won gains should be but a signal for intensified action in the future.

In contrast, indices which are a measure of the severity of the accidents showed no improvement—the proportion killed remained at the same level as in 1960. It is evident from the leading causes of motor-vehicle injuries and deaths that there is a great and enduring need for the use of caution, courtesy, and common sense by the man in the driver's seat.



E. C. Kenney,  
Surgeon General, United States Navy.

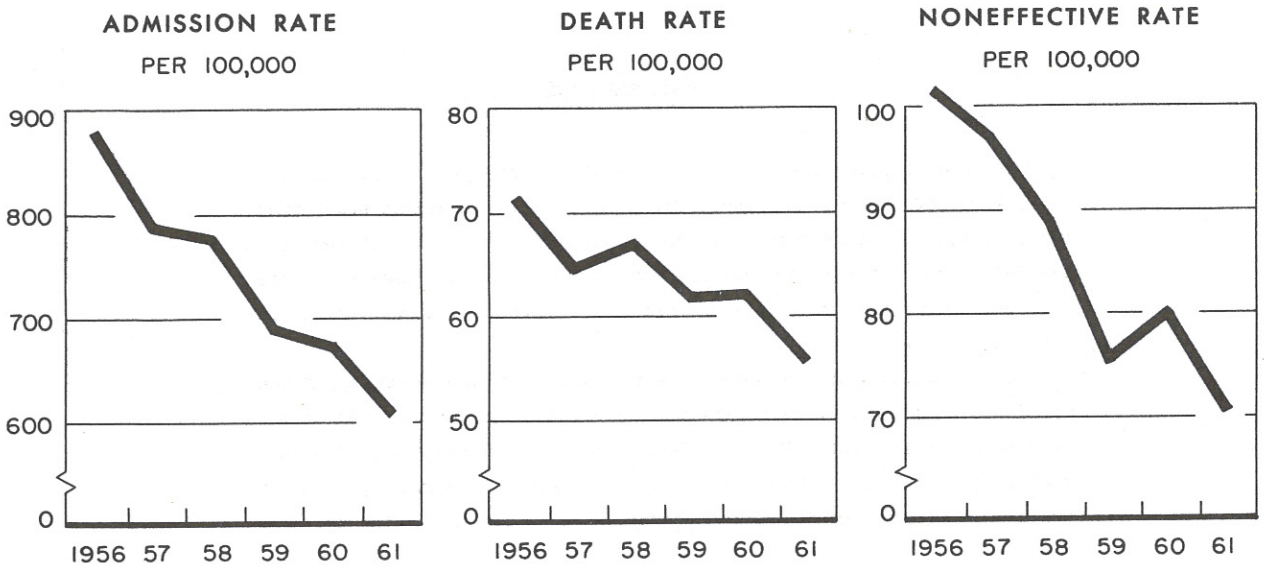
From Statistics of Navy Medicine, Volume 18, December 1962.

Motor vehicle accidents claimed 477 lives and hospitalized almost 5200 Navy and Marine Corps personnel during 1961. However, statistics for 1961 reveal some encouraging trends in the morbidity indices used to evaluate this manpower loss. The admission and death rates declined 10% each and the non-effective rate 12%. These three indices have dropped considerably since 1956.

While the number of injuries and manpower loss declined in 1961, the indices measuring the severity of motor vehicle accidents remained at the same high level as in the previous year. The proportion of those killed was 9.2 per 100 admissions—the same fatality rate as in 1960. The most serious aspect of motor vehicle accidents in the Navy and Marine Corps has been the steady increase in the fatality rate during the last several years. There was little improvement in the average length of stay on the sicklist for motor vehicle accident victims. The average was 6 weeks—just one day less than in 1960. This index has shown no definite trend, but has varied between 40 and 45 days in recent years.

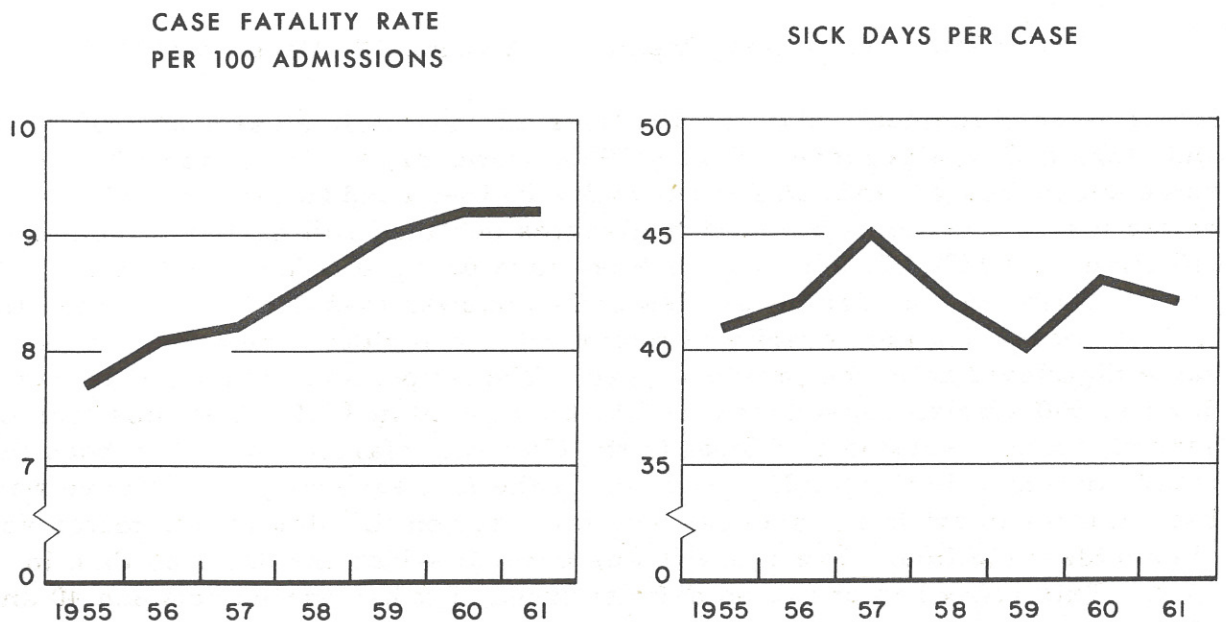
In 1961, as in previous years, a large proportion of motor vehicle accidents occurred to personnel while they were on leave or liberty. Off-duty accidents were responsible for 88% of admissions to the sicklist, 93% of the deaths, and 91% of sick days.

FIGURE 1.



Two types of accidents—running off or overturning on the roadway and collisions with other motor vehicles (including motorcycles in collision with other

FIGURE 2.



motor vehicles)—were the leading causes of motor vehicle accidents. They accounted for two-thirds of the motor vehicle admissions and deaths in 1961. Nine percent of those involved in running off the road or overturning on roadways, and 11% of those involved in collisions were killed. As in the past, the



chances for survival were least in collisions with railway trains, with a fatality rate of 38.1 per 100 admissions.

More personnel were injured in motor vehicle accidents on Saturday than on any other day of the week. However, mortality was highest on Sunday. Monday was the safest day to drive as far as mortality was concerned, with a fatality rate of 7.1 per 100 admissions as compared with a rate of 10.8 on Sundays.

The type of vehicle most often involved in motor vehicle accidents is the passenger car. The motorcycle ranks second. In 1961, 3830, or almost 74% of injuries, occurred in passenger car accidents, and 601, or almost 12%, in motorcycle accidents.

In the Navy and Marine Corps, motor vehicle accidents take the greatest toll among the younger age groups. In 1961, three-fourths of admissions and deaths were for personnel under 25 years of age.

\* \* \* \* \*

### Salmonellosis and Shigellosis

Editorial by William R. McCabe MD, Department of Medicine,  
University of Illinois College of Medicine, Chicago, Illinois,  
Ann Intern Med 57: 1043-1046, December 1962.

Heroditus\* records the disastrous effects of dysentery on Xerxes' army during the retreat to Persia after the naval engagement at Salamis in 480 B. C. Similarly, clinical material recorded by Hippocrates suggests that he observed both bacillary dysentery and typhoid, and although the latter was not differentiated clinically until the nineteenth century, the death of Alexander of Macedonia has even been attributed to typhoid. These records leave little doubt that both salmonellosis and shigellosis can be dated to antiquity. Not only were these infections prevalent in ancient civilizations, but it is tempting to postulate that Moses' directions to the Hebrews for the disposal of human excreta (Deuteronomy 23: 12-13) represented, not strict ritual, but some knowledge of the spread of infection from fecal contamination.

The devastating effect of infectious diseases on military campaigns is responsible for much knowledge concerning the occurrence of these diseases in the past. The extreme susceptibility of military populations still presents a significant medical problem and has been an important determinant of the outcome of military campaigns. The military importance of infections, particularly of the epidemic variety, has stimulated research into their etiology, pathogenesis, and control. A distinct lowering of the incidence and fatality rate from serious infections occurred during the last war, and although typhoid paratyphoid, and Shigella infections were not entirely eradicated, the incidence

\* Plague too and dysentery attacked the troops (of Xerxes) while still upon their march, and greatly thinned their ranks. —The History of Herodotus, the Ninth Book, Entitled Calliope. Translated by George Rawlinson.

among the armed forces was kept very low by the enforcement of sanitary precautions and immunization. Because only a small percentage of civilians are immunized or have maintained immunization, the risk to the civilian population from typhoid and paratyphoid at present is probably greater than that to the military population, particularly if widespread disruption of sanitary facilities should occur. The susceptibility of the civilian population is emphasized by the occurrence of several small epidemics of typhoid or paratyphoid in the past decade. Although there has been a progressive decrease in the frequency of cases of typhoid and paratyphoid in the United States during the past 60 years, the over-all incidence of all *Salmonella* infections continues to increase sharply.

The symptomatology and severity of *Salmonella* infections vary considerably, but *Shigella* infections almost always consist of diarrhea or dysentery of varying degrees of severity. Carriers of chronic asymptomatic *Shigella* infections do appear, but they are less frequent than carriers of *Salmonella*. The spectrum of salmonellosis ranges through the asymptomatic carrier state, acute gastroenteritis, the typhoidal syndrome, and rapidly lethal bacteremia. The frequency of these syndromes varies with individual species of *Salmonella*, but almost every species may produce each syndrome. Such a spectrum of illness may be observed in individuals infected with similar numbers of *Salmonella* of the same species at the same time.

In general, strains of *Salmonella* associated with animal sources are more frequent causes of gastroenteritis, while human strains (*Sal. typhi*, *Sal. paratyphi A* and *B*) are associated more frequently with the typhoidal syndrome. Exceptions do occur, particularly with *Sal. choleraesuis*, an animal strain which is often associated with focal lesions, the typhoidal syndrome, and lethal bacteremia; but this generalization usually holds true. The variability of the illnesses produced by individual species and occurring in different patients infected with the same strain demonstrates the importance of both specific bacterial and host factors in modifying the symptomatology and outcome of salmonellosis. Some host factors have been defined epidemiologically and include age, debility, and coexistent disease (malaria, viral hepatitis, previous gastric surgery, and hemolytic anemia). In the past, the absence of a suitable experimental infection simulating typhoid or paratyphoid fever made it difficult to study these variables under controlled conditions.

More recently, experimental infections in chimpanzees and in human volunteers were produced. Both experimental infections mimic clinical typhoid and a spectrum of illness occurs in individuals with similar immune status challenged with the same number of organisms. In chimpanzees, rechallenge after recovery demonstrated evidence of immunity, but this was not observed in the experimental human infection. Both types of infection required extremely large numbers of bacteria, larger, in fact, than the number of organisms excreted per gram of stool by patients with *Salmonella* gastroenteritis or by most *Salmonella* carriers. If these quantitative relationships are correct, it would appear that bacterial proliferation outside the human is a prerequisite for infection, and they suggest that facilities for refrigeration and water filtration have been as important as other measures in the control of the enteric fevers.



In particular, it would be of interest to ascertain the importance of the numbers and types of endogenous fecal flora in the development of typhoid. Judicious investigations with these experimental infections could clarify many of the factors associated with the acquisition, symptomatology, and resistance to typhoid.

Shigellosis always has a human source, but fecally contaminated food or beverages may serve as the vehicle. Transmission also may be accomplished by flies. Two distinct sources of infection by *Salmonella* are recognized and are equally important. The first—the carrier state and its management—is well delineated by Tynes and Utz in an article which appears in this issue of the *Annals of Internal Medicine*. Much previous work concerning the treatment of chronic carriers has been handicapped by the failure to clearly differentiate chronic carriers from temporary convalescent carriers and inadequate post-treatment observation. Both are adequately defined by Tynes and Utz, and the results observed are quite gratifying.

The failure of several courses of antimicrobials to reverse the carrier state after cholecystectomy is disturbing, and emphasizes that cholelithiasis alone does not entirely explain the difficulty of rendering the chronic carrier noninfectious. Convalescent carriage of typhoid and paratyphoid bacilli is much higher among younger patients and may persist for 6 to 12 months, but chronic carriers (carriers for more than 12 months) are uncommon in children. Adults, particularly women from 40 to 50 years of age, are especially apt to be chronic *Salmonella* carriers. Eradication of *Salmonella* from the more than 3500 typhoid carriers in the United States is an almost insurmountable problem. Even if it were possible, the greater problem of the unrecognized carrier would remain. Identification of the original infection; even retrospectively, often is not possible; the most vigorous public health measures must be devoted to educating the public and industry to the importance of hygienic practices in food preparation and to requiring periodic stool examinations for all food handlers. It is not possible to overemphasize the importance of frequent hand washing, the separation or cleaning of utensils used in preparation of individual dishes, and adequate refrigeration.

The second important source of *Salmonella* infections, animal products, makes these measures even more important. Almost every type of domestic animal and many wild animals harbor *Salmonella*. Innumerable epidemics are attributable to animals or animal products. Since it is unlikely that *Salmonella* can be completely excluded from meat products and eggs, adequate cooking and the use of methods to minimize cross infection and bacterial proliferation are even more imperative.

Lack of adequate comparative studies has hampered the accurate assessment of the value of immunization against typhoid and the accurate determination of antigenic components necessary for protection. In particular, the significance of antibodies to the Vi antigen of *Sal. typhi* has been stressed. Vaccines containing alcohol-killed bacilli have been claimed to be more effective inducers of Vi antibodies than the phenolized preparation currently in use in this country. Recent controlled field studies in Yugoslavia, however, demonstrated a distinct decrease in the incidence of cases of typhoid fever with

positive blood cultures among subjects immunized with phenolized vaccine, as compared with subjects immunized with alcohol-killed vaccine and with controls. The superior results from phenolized vaccine cast doubt on the importance of Vi antibody. This study and the experiences of British and American troops clearly demonstrate that none of the vaccines presently available is entirely protective. Similarly, complete immunity to reinfection does not occur after either naturally or experimentally acquired typhoid.

Broadening of the spectrum of protection afforded by immunization also would be of value. Preparations currently available immunize against Sal. typhi and paratyphi A and B, but do not contain antigens from serogroup C (C<sub>1</sub>, C<sub>2</sub>). Sal paratyphi A only constitutes approximately 0.5% of the isolates of Salmonella in the United States, while species of group C comprise 30 to 40%. It would seem particularly appropriate to provide protection against Sal. choleraesuis (C<sub>1</sub>) in view of its frequency and extreme virulence.

The usual Shigella infection is only of moderate severity in adults, but it may be quite severe in infants. The most critical aspect of therapy in infants is prompt and adequate fluid and electrolyte replacement. Although significant degrees of resistance to sulfonamides occur in areas of the world with high rates of endemic shigellosis, Shigellae resistant to sulfonamides are not a major problem in the United States. Absorbable sulfonamides remain the treatment of choice initially, with the tetracyclines reserved for use against resistant strains.

In contrast, the treatment of salmonellosis remains quite unsatisfactory. None of the antimicrobial agents currently available have been demonstrated to affect the course of Salmonella gastroenteritis. While chloramphenicol has significantly reduced the fatality rate of typhoid fever and the duration of excretion of typhoid bacilli during convalescence, it has not affected the frequency of the complications of typhoid or the frequency of chronic carrier state. The rate of relapse is higher among patients treated with chloramphenicol than in untreated patients. Similarly, chloramphenicol has been of benefit in focal Salmonella infections and some bacteremias, but a considerable need still remains for an antimicrobial agent of greater effectiveness against Salmonellae since none of the newer antimicrobial agents has been shown to be of significant value in vivo against Salmonellae.

The responsibility of the practicing physician to work closely with health authorities cannot be overemphasized. Surveillance and control measures by health departments are dependent on the maintenance of a high degree of suspicion, adequate cultures, and prompt reporting by the physician. Finally, acceptance of the concept of total patient care requires that the family physician insist upon the maintenance of immunization in adult as well as in pediatric practices.

\* \* \* \* \*



Bacteriuria Prevention after Indwelling  
Urinary Catheterization\*

Christopher M. Martin MD, and Edward N. Bookrajian MD, Jersey City,  
N.J. Arch Intern Med 110: 703-711, November 1962.

In the 6 years since Kass firmly reintroduced the concept of counting bacteria in the urine, physicians have become increasingly aware of the wide prevalence of urinary tract infections. In addition, with the use of the quantitative urine bacterial count as an epidemiologic and experimental tool, many workers have contributed to the growing body of evidence implicating various modes of urinary tract instrumentation in the induction of bacteriuria, pyelonephritis, and their complications.

The present study was conducted as a result of a systematic review of cases of bacteremia at the Jersey City Medical Center in 1960; this survey demonstrated a high incidence of bacteremia very similar to that reported by Finland and revealed a close association between Gram-negative rod bacteremia and prior urinary tract instrumentation. Analysis of 81 cases of Gram-negative rod bacteremia complicating pyelonephritis indicated that in 78 the patient had previously undergone one or more forms of urinary tract instrumentation. Of these, 17 developed bacteremia shortly after undergoing various genitourinary diagnostic or therapeutic procedures. More striking, however, was the finding that 44 of these patients, 33 of whom died, developed their Gram-negative rod bacteremia less than 10 days after indwelling Foley catheterization. As the first step in an effort to reduce this incidence of Gram-negative rod bacteremia, the present study was conducted. It was designed to compare the frequency of acquisition of bacteriuria after indwelling urinary catheterization by each of four methods.

Although several workers contend that indwelling Foley catheterization, with or without systemic chemoprophylaxis, is a relatively innocuous procedure when sterile technic is observed, increasing numbers of investigators have reported high rates of infection of the urinary tract after indwelling catheterization in medical, surgical, urologic, gynecologic, and other patients. Moreover, although the significance of "catheter fever" has been recognized for many years, it is only recently that the seriousness and increasing incidence of Gram-negative rod bacteremia have been appreciated, and its particularly close association with indwelling catheterization suspected.

The incidence of bacteriuria prior to catheterization in patients in the present study (14/68—21%) is similar to that observed in surveys of gynecologic populations by others. Moreover, this incidence was essentially the

\* Presented in part before the Section on Microbiology, New York Academy of Medicine, March 8, 1962; from the University Medical and Gynecology Services, Jersey City Medical Center, and Division of Infectious Diseases, Department of Medicine, and Department of Obstetrics and Gynecology, the Seton Hall College of Medicine. Aided by a grant from the Merck Institute for Therapeutic Research.

same in ward patients (6/30—20%) and private patients (8/38—21%) and in whites (10/45—22%) and nonwhites (4/23—17%).

The decision to conclude the study after only 75 patients had been randomly assigned to catheter groups was a deliberate one. Since the differences in infection rates between groups had already reached a high degree of statistical significance, it was believed by the investigators and many of the responsible physicians that there was no longer ethical justification for allowing patients to be assigned to the group with indwelling Foley catheter without systemic or local antibiotic therapy, or to the group with indwelling Foley catheter with systemic chloramphenicol chemoprophylaxis.

The finding of an infection rate of 100% in patients on Foley catheters on open drainage, without antibiotics, is in substantial agreement with the findings of others both in men and women. The finding that systemic chemoprophylaxis with either chloramphenicol or penicillin and streptomycin affords no significant protection against the acquisition of bacteriuria after indwelling catheterization is in accord with the data of several investigators and contrary to the findings of others. The data suggest that chemoprophylaxis merely shapes the character of the resultant bacteriuria and favors the emergence of infecting organisms resistant to the chemoprophylactics employed, a phenomenon observed in many medical and surgical instances.

The effectiveness of the 3-way catheter with a 0.25% acetic acid bladder rinse in preventing acquisition of bacteriuria after catheterization confirms the findings of Kass and Sossen. The similar effectiveness of the 3-way catheter with neomycin and polymyxin bladder rinse adds support to the clinical and experimental evidence that the first step in the induction of bacteriuria in the catheterized patient is the multiplication of organisms in the bladder urine after introduction by, through, and around the catheter, and that inhibition of such multiplication by compounds with broad activity against fecal and skin organisms is effective in prevention of bacteriuria.

The selection of neomycin and polymyxin as the active components of a continuous bladder rinse solution was based on evidence that both compounds are bactericidal in low concentration, that few potential urinary tract pathogens are resistant to both, and that the use of two drugs against a pathogen sensitive to both will reduce the probability of acquisition of resistance to either. Although the results in a group of patients demonstrate the broad antibacterial activity of combined neomycin and polymyxin, eventual decline in the efficacy of the combination after some years' use as a rinse solution can be anticipated. This decline may be accelerated by the current widespread use of both compounds in cosmetics and antibacterial ointments. The probable consequent selection, both in hospitals and in the community, of strains of bacteria resistant to both compounds might then necessitate substitution of other substances with broad antibacterial activity.

Several workers have presented evidence that the use of closed Foley catheter drainage systems, initially sterile throughout, somewhat reduces the risk of acquisition of bacteriuria. Whether addition of a closed drainage system or the use of catheters treated with antibacterial compounds might improve the efficacy of regimens remains to be determined.



Partly as a result of the present study, the Medical Board of the Jersey City Medical Center, in December 1961, formally prohibited the use of the Foley catheter in the hospital except in unusual circumstances; the 3-way catheter was adopted with neomycin and polymyxin rinse in a sterile closed system as the preferred method of indwelling catheterization. The otherwise effective acetic acid rinse method was deemed less preferable after difficulties were encountered in training nurses and nonprofessional ward personnel to monitor the rinse flow properly.

\* \* \* \* \*

Sudden and Unexpected Death in Infancy - with  
Special Reference to So-Called Crib Deaths

Editorial by Robert W. Huntington Jr, MD, and Joseph J. Jarzynka MD,  
Kern County General Hospital, 1830 Flower Street, Bakersfield, Calif.  
Amer J Clin Path 38:637-638, December 1962.

Although what have been designated as crib deaths sometimes occur at ages 3 and 4, they are relatively much more frequent in younger children. From the standpoint of forensic pathology, infancy is usually thought of as approximately the first year of extrauterine life, the period of relative immobility and relative freedom from the various physical and chemical hazards that beset the toddler. Unexpected death in infancy excludes stillbirths, deaths associated with prematurity, most of those associated with delivery, and most others occurring with a physician in attendance. The remaining cases constitute a large segment of the practice of forensic pathology, and the most frustrating and emotionally harassing problem the forensic pathologists must deal with. The fact, emphasized by the writers, that the largest segment of this group of deaths urgently requires new methodology and new research concepts is no excuse for failing to make comprehensive use of currently available methods in the study of the group as a whole.

Unexpected deaths among infants, in the writers' experience, have proved to be the result of obstructive uropathy, congenital cardiovascular disease, myocarditis, poliomyelitis, Haemophilus influenzae laryngitis, and sepsis. The authors have encountered one extraordinary case of extensive disease of the coronary artery with myocardial infarction. Many of these lesions would doubtless have been missed with incomplete or perfunctory autopsy procedure. A few instances of subdural hematoma have been observed and a few examples of genuine mechanical asphyxia. In some instances, the body is found in a curious position, and it may be extremely difficult to decide whether this position is the cause or the result of the agonal collapse.

In the majority of instances, however, the combined efforts of the pathologist and the investigator at the scene fail to uncover any satisfactory leads. For these cases, the term "crib death" is as convenient as any, although death may occur in the mother's lap, or even in the doctor's office. The only consistent anatomic finding is pulmonary edema and congestion. Definite microscopic

evidence of a pneumonic process may be found in a sizable minority; in the majority, the findings are less clear. In the writers' experience, the pulmonary congestion and edema have been much more conspicuous and consistent in these persons than in those with definite mechanical asphyxia; with a few minor variations, the histories tend toward a tragic monotony. One quickly comes to believe that he has heard the story a thousand times before. A well nourished and apparently well cared for infant is put to bed. Frequently, it has manifested evidence of a "little cold." Rather frequently, there is a story of a "cold going around in the family." Occasionally, very timorous parents have called a doctor. Usually there has been no request for medical attention. The next member of the family to visit the infant finds that it has died.

Such deaths have been ascribed to status thymicolymphaticus and to mechanical asphyxia. A large thymus is, of course, normal for persons of this age who have not suffered wasting disease. The notion of mechanical asphyxia is based on the assumption that the infant has somehow or other covered its airway with bedcovers or mattress and has been unable to free itself. It has not been easy to determine how such a thing could happen to a healthy wriggling infant, and there seems to have been some agreement as to differences between the findings in these instances and in those of genuine mechanical asphyxia.

Although the possibility must be admitted that the definite microscopic finding of a pneumonic process in some of these cases might represent mere coincidence, many observers have thought that it was the most substantial lead which was available and that nondescript findings in the majority of cases were compatible with the notion that the process was simply too early and too florid to have acquired any style. Attempts to isolate viruses—although perhaps not very systematic—have been numerous, and the lack of positive results is certainly somewhat disheartening. Routine bacteriologic studies (for Streptococci and other organisms) have hardly been adequate. In this age group, there is much difficulty with postmortem contamination. If the lesion should be viral, it would seem that the virus might well be of a somewhat low grade, banal pattern, difficult to isolate or to characterize.

The notion of a noninfectious metabolic catastrophe has been entertained. A year or two ago, a learned and zealous friend in Alameda County, Calif., was hopeful of discovering something in the area of steroid metabolism. The problem of steroid metabolism in infancy seems to be one of harrowing complexity, and the writers have, therefore, not been astonished at the absence of cries of triumph from their colleague. That he has not succeeded does not mean that steroid metabolism or any other hopeful metabolic lead should not be pursued.

Despite the appalling depth of professional ignorance, some sort of label has to be pinned on these cases, and that of "crib death" won't quite do. To the writers, the notion of infection, despite all the difficulties it entails, remains the most plausible, and they have continued to use the term "acute interstitial pneumonia." Careful microscopic study, especially in regions where edema is not too pronounced, reveals thickening of alveolar wall by infiltration with mononuclear cells. Its significance, in the absence of infiltration of polymorphonuclear leukocytes, is admittedly subject to argument. In discussing these cases with families, it seems appropriate to emphasize



the need for more light and for more science. To the writers, it seems that consistently negative facts in years of study justify a rather strong assurance to the family that this is not their fault. The reasons for rejecting the notion of mechanical asphyxia still seem to be substantial, and none of the (to the writers) fantastically ingenious suggestions as to how such asphyxia might occur offer any suggestion as to how it might be prevented.

If a physician is involved who has been called on account of the baby's cold, but hasn't been able to make a visit before the tragedy, it seems clear enough that there is no indication as to how he might have prevented that tragedy. Surely, it is seldom impossible to explain all of this. In a recent discussion of the problem of "crib deaths," one writer found himself somewhat perturbed by the suggestion that the term mechanical asphyxia should be preferred to that of acute interstitial pneumonia in order to protect the physician by means of putting the blame on the family. This hardly seems the most appropriate way to solve a scientific problem; the position of the family in these catastrophes can hardly be considered less pitiable than that of the physician. A careful explanation with frank admission of what is not known would seem to be a reasonable way of avoiding such a dilemma. Doubtless, it would be appropriate for pediatricians, general practitioners, and public health officials to share some of the forensic pathologist's awareness of the magnitude of the "crib death" problem.

\* \* \* \* \*



## MISCELLANY

### HISTORICAL FUND

of the

### NAVY MEDICAL DEPARTMENT

A committee has been formed with representation from the Medical Corps, Dental Corps, Medical Service Corps, Nurse Corps, and the Hospital Corps for the purpose of creating a fund to be used for the collection and maintenance of items of historical interest to the Medical Department. Such items will include, but will not be limited to, portraits, memorials, etc., designed to perpetuate the memory of distinguished members of the Navy Medical Department. These memorials will be displayed in the Bureau of Medicine and Surgery and at the National Naval Medical Center. Medical Department officers, active and inactive, are invited to make small contributions to the fund. It is emphasized that all donations must be on a strictly voluntary basis. Funds received

will be deposited in a Washington, D. C. bank to the credit of the Navy Medical Department Historical Fund, and will be expended only as approved by the Committee or its successor and for the objectives stated.

It is anticipated that an historical committee will be organized at each of our medical activities. If you desire to contribute, please do so through your local historical committee or send your check direct, payable to Navy Medical Department Historical Fund, and mail to:

Treasurer, N. M. D. Historical Fund  
Bureau of Medicine and Surgery (Code 14)  
Department of the Navy  
Washington 25, D. C.

#### Committee

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R. A. ERICKSON, Captain (NC) USN  
T. J. HICKEY, Secretary-Treasurer

\* \* \* \* \*

#### Admiral Sabin Expresses Sound Philosophy on Acceptance of Naval Duty Assignments

In recent correspondence, the Surgeon General, Rear Admiral E. C. Kenney, MC, USN, received the following information from Vice Admiral L. S. Sabin, USN (Ret). It is an excerpt from a letter written by Admiral Sabin to a friend whose young doctor son plans to go on his first active duty as a medical officer in the U. S. Navy:

"The Surgeon General will know that I know there is something more to being a Medical Officer of the Navy than being a doctor only. It involves dedication as an officer, as well as a doctor. It involves assignment to the duty in which the Bureau of Medicine and Surgery considers him best needed—and more often than not the needs of the Service take precedence over the desires of the individual. In the Navy we sometimes make a mistake by trying to fill a round hole with a square peg. This doesn't happen often, but it does happen. The best advice I can give your young doctor son is this. Let him remember that he will be assigned in accordance with the needs of the Service. If, perchance, he is assigned to duty he doesn't particularly want or like he can do one of two things. He can eke out his time by doing no more than he has to do to get by and gripe the



rest of the time; or he can tackle the job with all the enthusiasm he can muster. If he does the latter, not only will his superiors note it but he will have the personal satisfaction of fulfilling his dedication both as an officer and as a doctor; and I can assure you that such a course will pay him dividends whether he remains in the Service or not. "

NOTE: The Surgeon General and Rear Admiral C. L. Andrews, MC, USN, Assistant Chief of the Bureau for Personnel and Professional Operations, both consider that, although Admiral Sabin referred particularly to medical officers, the same philosophy applies, or should apply, to all Medical Department officers.

It is a pleasure to publish this highly significant excerpt, and we are grateful for Admiral Sabin's permission to quote him on a key ingredient of success and happiness.

- Editor

\* \* \* \* \*

Surgeon General Commends Medical Department  
of the USS CONSTELLATION (CVA-64)

Rear Admiral Edward C. Kenney, MC, USN, Surgeon General of the U. S. Navy, has forwarded the following letter to Lieutenant Commander Arthur J. Grote, MC, USN, Medical Officer of the USS CONSTELLATION:

"Dear Doctor Grote:

I have followed with high interest the reports concerning the recent flight deck accident which occurred aboard the USS CONSTELLATION and I have been extremely gratified by the prompt and efficient manner in which life-saving emergency first-aid measures were rendered to the injured. I know of no instance in which the importance of thorough indoctrination and training of all hands in emergency first-aid procedures has been more clearly demonstrated. I feel that too often, in the press of other more urgent Medical Department duties, there is a tendency to neglect or delay such first-aid training which is clearly a Medical Department responsibility. That this is not the case aboard your ship has been proven beyond all doubt.

"I am sure that long hours and much effort have been expended by your Medical Department in bringing to the ship's crew the degree of competence in first-aid procedures which was demonstrated so ably during this tragic accident. I can conceive of no time better spent by any Medical Department than that which results in the saving of lives as undoubtedly was the case in this accident. The gratitude of the families and friends of the injured to all concerned will be everlasting.



"As Surgeon General of the United States Navy, I wish not only to tender my highest praise but also to express my pride in the Medical Department aboard the USS CONSTELLATION for the outstanding performance which exemplifies the aim of this Bureau in support of the Fleet. Well done."

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### Naval Aviation Memorial Chapel

Plans are in progress to install stained glass windows in the new Naval Aviation Memorial Chapel at the U. S. Naval Air Station, Pensacola, Florida, the Cradle of Naval Aviation. There are eight large windows in the Chapel in which will be installed stained glass windows with basic subjects of the Old and New Testaments. The distinguished artists for this project have previously designed windows for the Chapels at the U. S. Naval Academy and for the U. S. Air Force Academy.

The Naval Aviation Memorial Chapel, completed in 1961, is located on the main street of the station where the sound of chimes in the tower can be heard throughout the area. Only those who have recently visited Pensacola can truly appreciate the impressive beauty of this new Chapel with an architectural design following the Georgian style common to the principal buildings on the station. The structure is utilized by service personnel of all faiths.

All Medical Department officers who are or have been associated with Aviation Medicine, particularly those who have attended the Naval School of Aviation Medicine, whether active in Aviation Medicine or not, should be interested in the opportunity to further strengthen the ties between Aviation and Medicine by donating the window depicting the subject, "Christ the Healer." No public or servicewide appeals to individual officers for funds have been made. However, voluntary assistance in this most worthy and memorable cause would be most gratefully appreciated by our Medical Department officers at Pensacola. Contributions may be forwarded to the Commanding Officer, U. S. Naval Aviation Medical Center, Pensacola, Florida, by check or money order made payable to The Naval Aviation Memorial Chapel Window Fund. An appropriate plaque indicating that this window was made possible through the generosity of the Navy Medical Department will be suitably placed below the window. In a book of Golden Remembrances, it is hoped to permanently record the names of all those who participate in this worthy cause.

The cost of the one stained glass window is \$3,100.00. Contributions in any amount will be appreciated.

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DEPARTMENT OF THE ARMY TECHNICAL MANUAL  
DEPARTMENT OF THE NAVY PUBLICATION  
DEPARTMENT OF THE AIR FORCE MANUAL

TM 8-255  
NAVMED P-5064  
AFM 160-16  
C 1

## OPERATIONAL PROCEDURES FOR MILITARY BLOOD DONOR CENTERS

CHANGES

No. 1

DEPARTMENTS OF THE ARMY, THE NAVY,  
AND THE AIR FORCE  
WASHINGTON 25, D.C., 16 November 1962

TM 8-255/NAVMED P-5064/AFM 160-16, October 1959, is changed as follows:

1. Wherever the term "Armed Services Medical Materiel Coordination Committee" or the term "Chairman, Armed Services Medical Materiel Coordination Committee," is used in this manual, these terms will be changed respectively to "Military Blood Program Agency," or Director, Military Blood Program Agency."

2. Wherever the date of 1 March 1955 is used in conjunction with the Blood Donor Record Card, DD Form 572, or the Weekly Report of Bleedings, DD Form 572-1, it will be changed to "1 April 1960." In addition:

a. On page 24, opposite the identification of DD Form 572 in lower left corner, change the statement "Edition of 1 Sep 51 is obsolete" to read "Replaces edition of 1 Mar 55, which may be used."

b. On page 27, opposite the identification of DD Form 572-1 in lower left corner, add the following: "Replaces edition of 1 Mar 55, which may be used."

NOTE: This change was issued by order of the Secretaries of the Army, the Navy, and the Air Force. It is reprinted here as a service to any active duty Medical Department personnel who, perchance, have not yet seen the order. —Editor

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### Announcement on Tropical Medicine Training

A Symposium on Tropical Medicine will be held at the U. S. Naval Hospital, Oakland, California, on 14 and 15 March 1963. Outstanding speakers, each an expert in his chosen topic with long experience in the field, have been invited to participate.

A reorientation of Naval Medical Officers in Tropical Medicine is timely. World-wide commitments of Naval personnel and the ever-present possibility of introduction of so-called tropical diseases into the continental United States by travelers alike make familiarity with these disorders, their prevention and control highly desirable.

Naval Medical Officers in the Twelfth Naval District will be encouraged to attend on authorization orders. A limited number of officers from other Districts will be granted TAD orders. Promotion and retirement points for attendance will be granted to medical officers in the U. S. Naval Reserve. Civilian physicians in the Bay Area are invited. There will be no registration fee.

Messing facilities will be available at the U. S. Naval Hospital, Oakland. B.O.Q. accommodations will be arranged there and at neighboring facilities with bus transportation provided. —Submitted by RAdm T. G. Hays, MC, USN, Commanding Officer, USNH Oakland, Calif., and DMO, 12th Naval District.

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### NFPA Award to NNMC

The National Naval Medical Center received the distinction today of being the only Naval Medical Department activity to receive recognition in the 1962 National Fire Protection Association Contest.

In winning the Honorable Mention award for the third consecutive year, the Medical Center was one of 92 military facilities taking part in the contest. Competition was in the division having 1,500 to 3,500 personnel.

Sponsored by the Fire Prevention and Clean-Up Campaign Committee of the NFPA, the contest aims to stimulate universal fire safety consciousness and to encourage a wider use of modern techniques in both public and private fire prevention education.

In its 36th year of international competition, the NFPA recognizes excellence in the field of fire safety education and performance.

The Medical Center's Fire Department is headed by Chief Lawrence E. Green of 5814 Third Ave., Forestville, Md., and consists of a 12-man staff.

—P. I. O., NNMC, Bethesda, Md.

22 January 1963

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### Summary of Food and Water-borne Disease Outbreaks — 1961

One hundred and ninety-eight outbreaks of food- and water-borne disease involving 7,972 cases were reported to the Communicable Disease Center in 1961. A tabulation of the number of outbreaks and cases by etiology is shown.

Previous listings of food- and water-borne disease outbreaks reported in 1961 appeared in MMWR Vol. 10, Nos. 12, 27, 28, and Vol. 11, Nos. 12 and 14. During subsequent weeks, line listings of the remaining 1961 outbreaks will appear on the back page of the Morbidity and Mortality Report.

1961 SUMMARY OF FOOD-BORNE AND WATER-BORNE DISEASE OUTBREAKS

	Outbreaks	Cases
1. Staphylococcal	46	1,503
2. Salmonellosis	20	750
3. Typhoid	4	12
4. Shigellosis	3	169
5. Streptococcal	3	786
6. Trichinosis	3	35
7. Botulism	6	14
8. Clostridium perfringens	6	523
9. Viral Hepatitis	6	719
10. Chemical-Noxious Foods	6	370
11. Unknown	95	3,091
Total	198	7,972

From: MMWR, DHEW, PHS,  
12(5): 40, 8 Feb 1963.



## WANTED: ARTICLES FOR TRAINING BULLETIN

The *Naval Training Bulletin* describes methods and techniques of training throughout the Navy, explains plans and programs of the Navy Department, describes training of other U.S. Government agencies and foreign agencies of interest to naval personnel, and discusses training developments that have application to naval personnel. To reflect the training in the fleet and at field activities, the *Bulletin* needs articles from readers. Those who have participated in the operation of a successful training program are in an excellent position to pass along their ideas and share their experiences. Articles from fleet personnel help make the *Bulletin* what it is intended to be: a magazine which shows what is actually taking place in the fleet, rather than one which merely emphasizes pedagogical methodology.

The following types of articles are particularly desired:

- Those describing a training program that has solved some unusual problem.
- Those which describe a new approach or reflect new ideas with respect to some persistent or recurring problem.
- Those whose success is reflected in the fact that the ship or activity has received some form of commendation.
- Those simply describing a program which has worked well or has shown practical results.

What is needed is practical material, not polished prose. The staff of the *Bulletin* will provide any editorial treatment necessary to make articles conform to accepted style and grammar.

The following is a checklist for articles submitted:

- Does the article deal with something with which the author has had first-hand experience?
- Does the article deal primarily with facts and ideas which impart information, rather than those which merely publicize?
- Has the article been read and criticized by others? Have appropriate changes been made?
- Do the main ideas stand out?
- Have photographs been made to accompany the article? Are the photographs clear?
- Is the title short and accurate?
- Can the main idea of the article be expressed in one sentence?

This checklist is intended as a guide, not a criterion against which articles are judged; for example, photographs are desired for articles, but they are not essential. Articles may be of any length, but articles containing between 750 and 3,000 words are preferred.

If the author wishes his photograph to appear with his by-line, he should send a photograph of himself (any size is satisfactory) with the article.

From: Naval Training Bulletin -  
NAVPERS 14900, Winter 1962-63

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### Progress Report on Rib Osteoperiosteal Grafts

Capt James R. Dineen, MC, USN, Chief of the Orthopedic Service, U. S. Naval Hospital, Oakland, California, presented a movie on "Rib Osteoperiosteal Grafts" at the annual meeting of the American Academy of Orthopedic Surgeons in Miami, Fla.

The movie shows a surgical technique Dr. Dineen has developed for a special type of bone graft. By using the cambium layer of the periosteum, he has successfully treated fractures that are slow to heal when the autogenous graft is used. Particular success has been obtained in operations for non-unions of bone.

This type of bone graft surgery has been used successfully in 110 cases since development of the technique in 1956. The movie, filmed in the operating room at U. S. Naval Hospital, Bethesda, was viewed by more than 3,000 civilian orthopedists during the 20-25 January meeting.

From the Note Book

Training in Nuclear, Biological and Chemical Warfare Defense for Junior Medical Officers. The courses in Nuclear, Biological and Chemical Warfare Defense are listed below. Although primarily designed for Line Officers, they are considered to be extremely valuable for Junior Medical Officers as well. The Bureau will be pleased to consider requests from medical officers who can be spared from their duties for the periods indicated. It will not be possible to provide reliefs. Travel and per diem will be provided for a limited number depending upon the availability of funds.

Naval Damage Control Training Center, Philadelphia  
Nuclear, Biological, and Chemical Warfare Defense Afloat (5 weeks)

25 Feb 1963	15 July 1963	13 Jan 1964
25 Mar	12 Aug	10 Feb
22 Apr	9 Sept	9 Mar
20 May	7 Oct	6 Apr
17 June	4 Nov	4 May
	2 Dec	1 June

U. S. Naval Unit--Army Chemical Corps School, Fort McClellan  
Nuclear, Biological, and Chemical Warfare Defense Ashore (6 weeks)

18 Feb 1963	8 July 1963	6 Jan 1964
8 Apr	9 Sept	17 Feb
20 May	28 Oct	6 Apr
		18 May

U. S. Naval Schools Command, Treasure Island  
a. NBC Warfare Defense Afloat (5 weeks)

11 Feb 1963	1 July 1963	6 Jan 1964
18 Mar	12 Aug	10 Feb
	18 Nov	18 May

b. NBC Warfare Defense Ashore (6 weeks)

20 May 1963	30 Sept 1963	16 Mar 1964
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—Training Branch, Professional Div., BuMed.

Announcement of New Publication. The Division of Air Pollution of the Public Health Service, U. S. Department of Health, Education, and Welfare, has published a new, 56-page booklet, "Air Pollution... A National Problem."

Single copies may be obtained from the Division of Air Pollution, or the booklet may be purchased from the Government Printing Office, Washington 25, D. C., at 40 cents per copy.



The new booklet points out that rapidly increasing urbanization and industrialization are adding heavily to the nation's burden of air pollutants. Maps, charts, and graphs, illustrate the mounting severity of polluted air, not only in major urban areas—where six out of ten Americans now live—but in smaller communities as well.

By contrast, "Air Pollution...A National Problem" shows that only about half of the country's largest cities now have control programs; and only 17 State governments spend more than \$5,000 a year for air pollution control.

A series of maps shows, State-by-State, where major potential sources of air pollution are. A map of the nation shows principal interstate air pollution problems. Finally, the booklet outlines the respective responsibilities of Federal, State, and local governments in meeting the threat of air pollution and emphasizes the fact that effective air pollution control ultimately rests with the public who must see to it that responsible officials of government adopt and enforce adequate air pollution control programs if this drain on the nation's health and economic vitality is going to be reduced.

New National Institute Announced. Surgeon General Luther L. Terry of the Public Health Service, Department of H.E. W., announced on 4 February 1963, the establishment of a National Institute of Child Health and Human Development and the appointment of Dr. Robert A. Aldrich, Professor and Chairman of the Department of Pediatrics, University of Washington School of Medicine, as the Director of the new Institute.

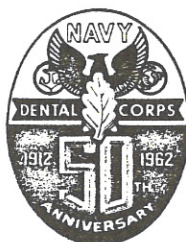
The National Institute of Child Health and Human Development was authorized by Congress in October, 1962, to supplement and reinforce research in the health status, needs, and problems of people in the various stages of development.

President Kennedy, when he signed the bill authorizing the new Institute, said, "We will look to the National Institute of Child Health and Human Development for a concentrated attack on the unsolved health problems of children and of mother-infant relationships. This legislation will encourage imaginative research into the complex processes of human development from conception to old age."

Two specialized research centers—the Center for Aging Research and the Center for Research in Child Health—formerly located in the Division of General Medical Sciences will provide the nuclei of the new Institute. It was emphasized that the other Institutes of the National Institutes of Health, Bethesda, Maryland, will continue their research in their special disease categories with respect to children and elderly people.

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## DENTAL



## SECTION

Prednisolone Desensitizing Solution

U.S. PHS, DHEW, Dental Health Memorandum, 15 January 1963.

Dr. John M. Francis, Chief, Dental Service, New Orleans PHS Hospital, reports that his clinic obtained the formula for Prednisolone Desensitizing Solution six months ago and has been using it with gratifying, and in some cases, almost spectacular results. For example:

- Case I. Six teeth, prepared for full crown coverage and carefully protected with temporary crowns, proved unbearably sensitive to even moderate thermal changes. The teeth were given one treatment with CMP-Prednisolone Solution, the temporary crowns reseated, and the patient was immediately able to drink ice water with no discomfort.
- Case II. This patient has always experienced considerable discomfort following cementation of new restorations. The Prednisolone Solution was used immediately following the recent preparation of two teeth for gold inlays. She has had no difficulty with these teeth either before or after placement of the new fillings.
- Case III. Patient presented with a fracture of the lingual plate of an upper first molar, complaining of extreme sensitivity. After treatment with Prednisolone Solution, the tooth has been comfortable even though no other protective media was used.

The following prescription must be carefully compounded to produce satisfactory results:

## CMP-Prednisolone Desensitizing Solution

Parachlorophenol	25%	All ingredients are by weight In a tared 100 ml. Erlenmeyer flask, weigh in the camphor and the parachlorophenol and swirl to form a eutectic mixture; then, weigh in the metacresylacetate and finally the prednisolone powder.
Metacresylacetate	25%	
Gum Camphor	49%	
Prednisolone	<u>1%</u>	
to make	100%	



Agitate gently and allow to dissolve over a period of 12 to 24 hours. Dispense in 8 ml. dropper bottles.

The shelf life of this product is reported to be four months; prepare only in quantities of 50 grams and label with an expiration date of four months after date of compounding. The first three ingredients can be mixed and kept for an indefinite period of time.

\* \* \* \* \*

### Developments in the Creative Education Movement

Based on an address by Alex F. Osborn, L. H. D., at the 8th Annual Creative Problem-Solving Institute at the University of Buffalo.

Up until a few years ago it was generally felt that people were either creative or non-creative, and nothing could be done about it. Scientific research has since done much to overcome that misconception. Future progress depends on further improvement in open-mindedness.

Development of, or improvement in creative problem-solving is based on the premise that our mental functions are essentially as follows:

1. Absorption - the ability to take in knowledge.
2. Retention - the ability to retain and recall knowledge.
3. Judgment - the ability to think logically.
4. Imagination - the ability to think creatively.

The application of these mental functions to creative problem-solving processes ideally comprises these procedures:

1. Fact-finding: This calls for problem definition and preparation - picking out the problem then gathering and analyzing the pertinent data.
2. Idea-finding: This calls for idea production and idea development - thinking up all possible leads to a solution and the modifying, reversing and combining these resultant ideas.
3. Solution finding: This calls for evaluation and adoption - verifying the tentative solutions by tests and otherwise then deciding on and implementing the final solution.

Every one of these steps calls for creative imagination. Perhaps that is why Einstein said, "Imagination is more important than knowledge."

A psychological investigator named Ribot revealed this conflict between imagination and knowledge. His studies showed that creativity declined during schooling even though initially imaginative power grew faster. Therefore, it is worthwhile for PhD's to include creative problem-solving among their courses.

### Principles

The most neglected part of problem-solving is idea-finding. This is because fact-finding and solution-finding primarily call for judgment, whereas idea-finding depends mainly upon creative imagination. Basically, idea-finding calls

for deferment of judgment during the ideative effort. Thus the critical faculty is prevented from jamming the creative faculty.

Research has shown that when individuals adhere to the principles of deferred judgment they can generate almost twice as many ideas. And additional studies have found that those who think up twice as many ideas actually produce more than twice as many good ideas.

This principle of deferred judgment applies with equal force to individual ideation and to collaborative ideation or "group brainstorming."

Webster's Third New International Dictionary defines "brainstorm" as a verb: "To practice a conference technique by which a group attempts to find a solution for a specific problem by amassing all the ideas spontaneously contributed by its members."

Although individual idea-production has the advantage of being usable at any place, group brainstorming (if properly conducted) possesses these merits:

1. **Deadline:** When a person faces the task of thinking ideas all by himself, he naturally tends to keep putting off the deliberate effort that is needed. On the other hand, by agreeing to go to a certain place at a certain time, as a participant in a brainstorm session, he thereby accepts a deadline which automatically precludes procrastination.
2. **Coaching:** A well-prepared leader of a brainstorm session continually points out directions in which the panelists can stretch their imagination.
3. **Contagion:** Group brainstorming brings into play a chain-reaction which causes the ideas of one panelist to trigger ideas in the others. The extent of this cross-fertilization was indicated by an analysis of a series of 38 brainstorm sessions. It was found that over 30% of all ideas produced were identifiable as "hitch-hikes" - ideas which had arisen from suggestions voiced by other panelists.
4. **Enjoyment:** Most people like to work with others rather than by themselves, especially in a congenial atmosphere. This is summed up by Sergeant Carl H. Rodriguez in connection with the Noncommissioned Officers Academy Graduates Association. He wrote: "Most of the panelists find group brainstorming one of the most enjoyable experiences they know of."
5. **Reinforcement:** All suggestions are received with a rewarding receptiveness. Conversely, the conventional type of conference often penalizes suggestions with deprecation. This type of deterrent is called "negative reinforcement" - a factor which cannot help but militate against desired behavior. Whereas, "deferment of judgment" is "positive reinforcement."

**Individual brainstorming:** In seeking to solve a problem, nearly everybody does most of his thinking all by himself. If and when such effort is based on deliberate application of the deferment of judgment principle, this procedure is sometimes referred to as "individual brainstorming."

That is what it has been called by Professor John Arnold of Stanford University. "An individual can form a brainstorming group," he said, "with himself as the only member." In this case, the elimination of the internal as well as external standards of judgment and evaluation, and the proper use of



check lists, area-thinking, or attribute-listening, or what have you, can result in a great many ideas and alternatives which can, at a later time, be evaluated as possible solutions for the problem."

**Source Book:** One of the new volumes will do much to convince skeptics of the merits of the creative education movement. This is the 390 page book (Scribners), entitled "A Source Book For Creative Thinking," edited by two leaders in the creative education movement: Dr. Sidney J. Parnes of the University of Buffalo and Dr. (Major General) Harold F. Harding of Ohio State University. This new Parnes-Harding book brings together the salient findings and best thinking of the nation's leaders in creativity research and development.

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### Personnel and Professional Notes

**U. S. Navy Dental Corps Continuing Training Program.** The U. S. Naval Dental Corps is offering a series of short postgraduate courses conducted by members of the staff of the U. S. Naval Dental School, NNMC, Bethesda, Md.

Among the courses to be offered is Oral Surgery. The date of the course is 8-12 April 1963. This course consists of seminars, lectures, and demonstrations. It covers premedication, local and general anesthesia, principles of exodontia, routine and unusual oral surgical procedures, treatment of facial fractures, and biopsy techniques. Emphasis is placed on preoperative evaluations necessary for minimal postoperative complications.

The instructor will be Capt G. H. Green DC USN, Diplomate, American Board of Oral Surgery. Quotas have been assigned to ComOne, ComThree, ComFour, and ComFive.

This short course is open to active duty career dental officers of the Armed Forces in accordance with quotas established by the Bureau of Medicine and Surgery. Applications should be received in the Bureau as early as possible and preferably, not less than 4 weeks prior to commencement of the course. The Bureau Professional Advisory Board will make recommendations on all requests, and upon approval by the Surgeon General, applicants will be notified as to the final action. Those approved will be nominated for TAD or authorization orders, as appropriate. Accounting data will be forwarded to individual officers nominated for TAD orders. Staff Dental Officers not utilizing assigned quotas should report this information to BUMED, Code 6111, one month prior to the convening date of the course. This will allow the Bureau to fill the quota from other districts.

**Dental Repairman Keeps Them Flying.** Training Squadron Twenty-Five at NAAS Chase Field, Beeville, Texas, had a problem. A quarter inch stud had broken off flush with a J48 engine case. The problem was multiplied when an easy out was broken off in the attempt to remove the stud. Assistance was requested of NAAS Chase Field Public Works Department; however, they lacked



the proper drills to do the job. Maintenance was faced with the problem of sending a good engine to an overhaul activity for repair or requesting that personnel with the proper equipment be sent here; all for one little stud. Then it was decided to try the Dental Department. Capt Wiseman DC USN provided the dental drills and Moore, DTC provided the knowhow. Moore, using a dental repairman's techniques removed the offending easy out and the stud; and saved the Navy thousands of dollars in labor cost, shipping charges and lost engine time. This is a first for Training Squadron Twenty-Five and no doubt a first for the Dental Department. —PIO, U. S. Naval Auxiliary Air Station, Chase Field, Beeville, Texas.

USS Enterprise Dental Officers Present Symposium. Dental Officers of the Dental Department of the USS Enterprise (CVAN-65) were guest clinicians at a symposium held at the U. S. Naval Dental Clinic, Norfolk, Virginia, on Friday, January 25th.

The principal speaker was LCdr Bill C. Terry DC USN who presented a slide illustrated lecture concerning the dental problems encountered aboard ship. Other members of the USS Enterprise Dental Department assisting in the program were: LCdr Richard H. Good, and Lts John Cuozzo and Norman H. Tracy. Capt Carl L. Wilhelm DC USN is the Senior Dental Officer on the Enterprise.

Rear Admiral E. G. F. Pollard is the Commanding Officer of the U. S. Naval Dental Clinic, Norfolk, Virginia.

Capt Parke Succeeds Capt Kyes. Capt Gerald L. Parke DC USN has assumed duties as Director of Dental Activities and Reserve Dental Program Officer at the 9th Naval District Headquarters at Great Lakes, Ill.

He succeeds Navy Capt Frank M. Kyes DC USN who was recently selected for the rank of rear admiral and named to serve as the Navy's Inspector General Dental.

Prior to assuming his new duties, Capt Parke served as Senior Dental Officer, Administrative Command, USNTC, Great Lakes, Illinois.

Dr. Boyle Lectures at Naval Dental School. Dr. Paul E. Boyle, Dean and Professor of Dental Medicine, School of Dentistry, and Professor of Oral Pathology, School of Medicine, Western Reserve University, Cleveland, Ohio, lectured on "The Pathology of the Periodontal Diseases" to staff, resident, and postgraduate dental officers, and civilian and military guests, at the U. S. Naval Dental School, Bethesda, Md. on 7 December 1962. The program was televised from the National Naval Medical Center by closed circuit to other medical and dental activities in the local area.

Dr. Boyle was formerly Professor of Oral Histology and Pathology and Chairman of the Department, School of Dentistry, and Professor of Oral Pathology, Graduate School of Medicine, University of Pennsylvania. At present, he is a Special Consultant on the Surgeon General's Advisory Committee for the U. S. National Health Survey.





## PREVENTIVE MEDICINE

### Completion of Immunization Requirements

With increasing frequency, it is being brought to the attention of this Bureau that Navy and Marine Corps personnel, including reservists called to active duty, are transferred to ships or oversea stations without immunization(s) or other medical procedures having been completed.

The risk of contracting and/or spreading disease, introducing infectious diseases to foreign areas as well as into the United States is a real one, particularly on board ships, by aircraft and foreign stations.

Naval reservists called to active duty are transferred to ships or overseas stations after having spent two or three weeks at a receiving station before being assigned to permanent duty stations. Failure to complete required medical and dental examinations and immunizations at the first duty station, places a burden on the receiving activity, particularly if it is a ship or overseas station. There is also the possibility that the individual concerned may not be physically qualified for transfer.

Medical officers are requested to insure completion of immunizations and strict adherence to requirements of BUMED Instruction 6230.1C, Section VIII, Chapter 22 of the Manual of the Medical Department, USN, and other pertinent current BuMed directives.

—Preventive Medicine Division, BuMed.

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### The Interpretation of Serologic Reactions to Syphilis

Los Angeles County Health Index, Los Angeles County Health Department,  
3 November 1962.

Basically, there are two types of antibody response when *Treponema pallidum* invades a human host. These are (1) antibodies to the treponema itself, and (2) antibodies resulting from the interaction of tissue with treponemes and called reagin. The former are measured by antigens obtained from the treponemes and are called treponemal antigens. The latter are measured by antigens obtained from tissue extracts such as beef heart and are called non-treponemal antigens.

### Non-Treponemal Antigen Tests

There are two types: (1) Flocculation tests such as the VDRL slide test, Kline cardiolipin test, Mazzini cardiolipin test, and the Kahn test (2) Complement fixation tests such as the Kolmer.

The non-treponemal tests are highly accurate and practical in spite of the fact that they are not absolutely specific for syphilis antibodies. These tests vary in sensitivity and specificity. (Sensitivity refers to the ability of a test to react in the presence of syphilis, and specificity to the ability not to react in the absence of syphilis.) This may account for the difference in results when a battery of tests are performed on the same specimen.

Non-treponemal tests are performed qualitatively or quantitatively. Qualitative reports may be reactive, weakly reactive, or negative. Quantitative tests permit more information and are performed by diluting the serum in geometric progression and testing to an end point when the serum is no longer reactive, i. e., 1:16 is interpreted that the serum is reactive in a dilution of 1:16, but non-reactive in a dilution of 1:32. The second number may also be expressed as 32 dils. The Kahn and Kolmer are reported in dilutions and multiplied by 4 to give the total results—thus 1:16 equals 64 units.

Quantitative tests afford a baseline of reactivity from which changes can be measured. If the infection is early the titre will rise with succeeding tests. Following therapy the titre will fall in succeeding tests. If the patient is sero-fast, the titre will remain unchanged. Patients with early infectious syphilis will usually have higher titres than those with advanced stages of the disease. Titres are higher with secondary syphilis than with primary syphilis. Latent syphilis usually has a low titre. Late syphilis such as gummas, may have a high titre.

### Treponemal Antigen Tests

The treponemal antigen tests are more specific than the non-treponemal tests. The treponemal tests are based on the fact that syphilitic serum will immobilize treponemes, whereas non-treponemal tests will not. The treponemal tests are less sensitive than the non-treponemal tests since the TPI (Treponema Pallidum Immobilization) antibody develops more slowly than does a reagin. The TPI test is only reactive in about 50% to 60% of primary and secondary syphilis and is about 98% reactive in latent or late stages of syphilis.

The TPI test is expensive due to the extensive procedures involved. However, other tests have been developed using *T. pallidum* or its fractions as antigens. These tests are: (1) Treponema Pallidum Complement Fixation test (TPCF); in this test a fraction of *T. pallidum* is employed. (2) Fluorescent Treponemal Antibody Test (FTA); this test uses a fluorescent antibody technique to demonstrate syphilitic antibodies by visualizing their adherence to dead *T. pallidum*. (3) Reiter Protein complement Fixation Test (RPCF); this is a complement fixation test using an antigen prepared from a nonpathogenic treponeme (Reiters) and based on the complement fixation procedure of



Kolmer. This is an inexpensive and simple test as compared to the TPI.

#### Special Purpose Tests

(1) The Rapid Plasma Reagin Test (RPR) employs a modified antigen made more sensitive by the addition of choline Chloride. This procedure is used in screening large numbers of specimens, and accuracy is sacrificed in favor of speed.

(2) Plasmacrit (PCT) Test. This is an adaptation of the RPR which uses the plasma portion of a blood specimen after separation in a micro-hematocrit.

#### Serologic Diagnosis

A diagnosis of latent syphilis in an asymptomatic patient is based on two or more reactive serologies, a history of previous infection or previous inadequate treatment, and a negative spinal fluid.

When the history is vague or inconclusive, the treponemal tests should be used. The Reiter Protein Complement Fixation (RPCF) test should be done initially. If reactive, then a diagnosis can be made. If the Reiter test is negative, then a TPI test should be performed. If the TPI test is reactive, then a diagnosis of latent syphilis can be made. If the TPI is negative, then syphilis can be ruled out.

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#### Poliomyelitis

U.S. PHS, DHEW, Atlanta 22, Georgia, Morbidity and Mortality Weekly Report 11(52), 4 January 1963.

The 707 cases of paralytic poliomyelitis reported for 1962 represent 177 fewer cases than were reported during 1961. The 886 total cases of poliomyelitis represent a 35% drop from the record low in 1961 of 1,364 total cases.

#### Poliomyelitis Cases for Past 5 Years

	1962	1961	1960	1959	1958
Paralytic	707	884	2292	5715	3150
Total	886	1364	3301	8573	6092

Texas accounted for 28% of the total cases. Limited outbreaks in 1962 were recognized in Alabama, Arkansas, California, Kentucky, Oklahoma, Pennsylvania, Texas, Virginia, and West Virginia. As has been true since 1955, the cases of poliomyelitis have occurred primarily in unimmunized, preschool age children.

During 1962, Type III oral vaccine was licensed, and all three types of oral vaccine were widely used. It is estimated that during 1962 over 35,000,000 persons received Type I oral vaccine, approximately 19,000,000 Type II oral vaccine, and 15,000,000 Type III oral vaccine. The vaccine was used largely in community programs and was not uniformly distributed throughout the United States.

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### Amebiasis: A Problem of Intestinal Symptomatology in the Aged

B. H. Webster, M.D., J Amer Geriat Soc 8(6): 449-453, June 1960.

Amebiasis is the most cosmopolitan and serious protozoan disease of man. Although the causative organism, Endamoeba histolytica, may live as a commensal parasite in man, certain conditions such as poor nutrition, debilitating disease, poor sanitation, and degenerative diseases of the aged, enhance the pathogenicity of the agent.

Digestive complaints are frequent in geriatric patients and may be treated without due diagnostic consideration of amebiasis, a disease that mimics many other disorders. Both benign and serious intestinal illnesses may simulate amebiasis, which is protean in its manifestations. Also, many subclinical cases pass unrecognized (1).

Thirty-four white geriatric patients (65 and over; 15 males and 19 females) with clinical amebiasis were studied with respect to gastrointestinal and systemic symptoms, previous diagnoses, complications, and treatment. Laboratory diagnostic methods are outlined.

The pitfalls in differential diagnosis in the aged are stressed.

#### Gastro-intestinal Symptomatology

The symptomatology of amebiasis is primarily gastro-intestinal (Table 1). The most frequent symptoms were abdominal distension and flatulence, which occurred in 20 and 19 patients respectively. Abdominal discomfort was a significant symptom, right lower-quadrant tenderness being present in 16, right upper-quadrant pain in 8, and tenesmus in 8.

Frank dysentery was present in only 4 cases; diarrhea was the presenting symptom in 12. However, there was recurrent diarrhea in 11, and constipation alternating with diarrhea in 7. Thus, the idea that amebiasis represents only amebic dysentery is outmoded. It is noteworthy that 12 patients had a history of recurrent "food poisoning," and 9 a history of recurrent "intestinal viral infections."

Symptoms of vague indigestion (10 cases), anorexia (11 cases), bulimia (8 cases), and eructation (5 cases) could easily have been mistaken for those of peptic ulcer, chronic atrophic gastritis, gastric achlorhydria, or carcinoma of the stomach. Gastro-intestinal x-ray examination and hydrochloric



TABLE 1

## Gastro-Intestinal Symptoms in 34 Cases of Amebiasis

Symptom	No. of Cases
Abdominal distension . . . . .	20
Flatulence . . . . .	19
Vague indigestion . . . . .	10
Eructation . . . . .	5
Bulimia . . . . .	8
Tenesmus . . . . .	8
Recurrent "food poisoning" . . . . .	12
Recurrent "intestinal viral" infections . . . . .	9
Right lower-quadrant tenderness . . . . .	16
Diarrhea . . . . .	12
Dysentery . . . . .	4
Recurrent diarrhea . . . . .	11
Constipation alternating with diarrhea . . . . .	7
Anorexia . . . . .	11
Pruritus ani . . . . .	9
Rectal bleeding . . . . .	4
Vomiting . . . . .	2
Right upper-quadrant pain . . . . .	8
Bloody mucus in stools . . . . .	9

acid determinations refuted these diagnoses. Vomiting was not common, being present in only 2 patients.

No distinct hemorrhages were observed, but rectal bleeding was present in 4, and the stools contained bloody mucus in 9. Pruritus ani was extremely troublesome in 9 patients, but subsided after anti-amebic treatment.

### Systemic Symptomatology

Chronic amebiasis presents many secondary systemic symptoms which may overshadow the intestinal or primary complaints. Many patients may remain asymptomatic for long periods of time. The nonspecific or constitutional symptoms are listed in Table 2; it is obvious that lassitude, vertigo, weakness, dyspnea, cardiac arrhythmias, and paresthesias may confuse the clinical picture. Arthralgias and myalgias are frequent enough to be striking. Cardiovascular symptoms of chest pain, cough, dyspnea, and cardiac irregularity may be present, but subside with amebicide therapy. Neurologic symptoms such as headache, vertigo, and paresthesias may present diagnostic problems. Weight loss was noted in only 5 patients of the series. Fever was present in only 4. Severe urticaria in 2 elderly patients cleared with amebicides, and did not recur.

TABLE 2

## Systemic Symptoms in 34 Cases of Amebiasis

Symptoms	No. of Cases
Cardiac irregularity	8
Lassitude	10
Vertigo	10
Headache	4
Dyspnea	6
Weakness	9
Chest pain	4
Loss of weight	5
Paresthesias	5
Urticaria, severe	2
Fever	4
Arthralgias	5
Myalgias	4
Cough	3

## Previous Diagnoses

Antecedent diagnoses are summarized in Table 3. Mucous colitis was the most frequent (13 cases). Twelve patients were thought to have nervous indigestion, and 8 neurasthenia. A diagnosis of spastic colon had been made in 10 cases. Chronic cholecystitis was diagnosed in 6, but cholecystograms revealed typical changes in only 1. Six patients had been advised to have an appendectomy, but symptoms subsided following disappearance of amebiasis. Seven patients had been successfully treated for labyrinthitis, and 10 for pruritus ani. In 6 cases the gastro-intestinal symptoms that were thought to be

TABLE 3

## Prior Diagnosis in 34 Cases of Amebiasis

Diagnosis	No. of Cases
Spastic colon	10
Cholecystitis	6
Nervous indigestion	12
Chronic appendicitis	6
Neurasthenia	8
Labyrinthitis	7
Pruritus ani	10
Mucous colitis	13
Senility	6
Residual effect of CVA	6



the effects of senility and cerebrovascular accidents subsided after treatment with anti-amebic drugs.

### Complications

In Table 4 the complications present in the 34 cases of amebiasis are listed. Amebic hepatitis was a complication in 8 cases (24.7%). Among the 8 patients with amebic hepatitis, there were 2 with pleuropulmonary amebiasis; such cases constitute diagnostic problems in pulmonary pathology of unknown etiology (2).

TABLE 4

#### Complications in 34 Cases of Amebiasis

Complication	No. of Cases
Secondary anemia	6
Diverticulitis of colon	3
Pleuropulmonary amebiasis	2
Chronic cholecystitis	1
Anal fissure	9
Pylorospasm	6
Amebic hepatitis	8
Perirectal abscess	2

### Hematologic Findings

There are no consistent hematologic findings in amebiasis. Leukocytosis was present only in the cases with hepatic and pulmonary complications. Eosinophilia was not consistent.

There is no general agreement among parasitologists as to the most effective amebicide. Table 5 shows the results of treatment with 3 drugs and the number of courses required for cure.

The drugs used were: a combination of glycobiarsol (Milibis) with chloroquine (Aralen) in 18 cases; diiodohydroxyquin (Diodoquin) in 13 cases; and carbarsone in 3 cases.

The criteria for cure were negative findings in serial stool specimens, and asymptomatic progress for one year following completion of anti-amebic therapy.

TABLE 5

#### Number of Courses of Drug Required for Cure of Amebiasis

Drug	Number of Cases Treated by Each Course of the Drug			
	Course 1	Course 2	Course 3	Course 4
Milibis with Aralen	18	14	3	1
Carbarsone	3	2	1	-
Diodoquin	13	9	2	2

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The Following Is Extracted from a "Post-Operation Report of  
MSTS Arctic Operations (East) 1962" from the USS ATKA (AGB-3)

"During a beach party at Itividleq, Greenland, a crew member was bitten several times on the hand by a fox which had been moderately but not strongly provoked and was not apprehended after the episode. Antirabies vaccine was obtained from the Air Force Base in Sondrestrom, Greenland, and the man was given the recommended 14-day course of duck embryo vaccine. He has remained perfectly asymptomatic since the episode.

"In as much as rabies is endemic among much of the wildlife in Greenland, it seems reasonable that a small quantity of rabies vaccine be carried on board during arctic operations." (Submitted by Capt W. S. Lawler, MC, USN, Staff M.O., Hdq. MSTS)

\* \* \* \* \*

Southwestern Conference on Diseases  
in Nature Transmissible to Man

The Thirteenth Annual Southwestern Conference on Diseases in Nature Transmissible to Man will be held in San Antonio, Texas, April 4-5, 1963, in the auditorium of the USAF Hospital, Lackland Air Force Base. The meeting is open to all interested physicians, veterinarians, epidemiologists, public health officers, microbiologists, zoologists, entomologists, laboratory workers, and individuals of related fields. Interested individuals can obtain further information by contacting Capt Wm. D. Hillis, MC, USAF, Chief, Department of Epidemiology, Chairman of Program Committee.



Control of Sand Flies (Culicoides)

Florida State Board of Health, Publication Office, Jacksonville, Florida.  
Entomological Research Center, Control of Sand Flies, Florida Health  
Notes, 54(10): 201-202, December 1962.

In many coastal areas of Florida, the salt marsh sand fly competes with the salt marsh mosquito for man's blood and, consequently, man's wrath. This almost invisible biting fly emerges from the water-logged soil of channel banks, ditch sides, and mud flats in the tidal areas. Its larvae are very small worms that live and grow in such places. The adults do not usually fly far from where they emerge, but the increasing popularity of waterfront homes in Florida is bringing more and more people to live right in the haunts of these vicious gnats.

The only way these sand flies can be controlled other than through insecticides is by either filling the land involved or keeping it flooded. Flooding the salt marsh for mosquito control is also liberating the same coastal areas from the sand fly plague. Research on the biology of sand flies may someday bring about other non-chemical control methods, but little of this is being done.

No presently known larvicide will effectively control sand flies without two very undesirable side effects: killing fish, shrimp, crabs and all kinds of other desirable aquatic life, and building up resistance to the insecticide in about three sand fly generations. Because of this no larviciding is recommended. Research is under way to develop a good sand fly larvicide. The project, with a very limited budget, is now merely at the laboratory chemical-screening stage. Aside from funds, the biggest bottleneck in this research is inability to mass-produce sand flies for testing purposes, which in turn, is attributable to lack of biological information.

The fogging done commonly for mosquito adult control will also kill sand flies. But sand flies are being produced continuously, so new contingents of adults are continuously appearing. This makes adulticiding rather futile since it has to be repeated every few hours to do any good, as well as every day. No adulticiding research is under way or contemplated. The control of sand flies is therefore awaiting greatly expanded research.

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Added Attraction—A do-it-yourself test for diabetes was added to a mass chest x-ray clinic. The scheme worked smoothly, an unexpected high proportion of male diabetics was unearthed, and the addition of the test made very little difference in the total cost of conducting the clinic. It was later discovered that a goodly number of persons underwent the chest survey so they could test themselves for diabetes. — J. Dewar. Diabetes Detection Combined with Mass Radiography. M. Officer 108, 18:273, November 1962. Amer J Public Health, January 1963.



Did you know:

That there were 1,784 cases of encephalitis reported in the United States during 1962? During the last 10 years, the number of cases reported yearly has ranged from 1,912 to 2,624. (1)

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That the virus of Venezuelan equine encephalitis has been isolated from 18 human cases in Colombia?

The blood samples were obtained in Maicao, Riohacha and Uribia, Intendency of La Guajira, from 11 to 19 November 1962. (2)

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That rabies has been reported in the Netherlands for the first time in 39 years? The last reported case, 1923, was in a dog. A 16-year-old boy died in an Amsterdam hospital on October 21, following the bite of a rabid dog; on September 8, a 3-year-old boy died of rabies.

Certain control measures have been undertaken in Amsterdam and neighboring communities in North Holland. Muzzling and holding on lead of dogs is now obligatory in Amsterdam. It is understood that steps have been taken for dog vaccination; Dutch medical and veterinary authorities are collaborating closely in this effort. On October 19, rabies was diagnosed in a cat. (3)

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That the palace of the 10th century Byzantine emperor, Constantine Porphyrogenitus, in Turkey, is in a state of good preservation?

Porphyrogenitus compiled Hippiatrica, the oldest surviving book of veterinary medical knowledge, which includes observations on animal diseases extending back to Galen and Hippocrates. (4)

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That Culex quinquefasciatus Say - better known as Culex fatigans Wiedemann - is perhaps the most widely distributed and most prevalent mosquito in the world today?



The distribution of quinquefasciatus is usually given as cosmotropical, but in the Northern Hemisphere this mosquito is found throughout the Southern half of the USA, Iraq, Iran, Northern India and Central China; in the Southern Hemisphere it occurs well south of the Tropic of Capricorn into Uruguay, Northern Argentina and Chile, the Union of South Africa and throughout Australia and New Zealand. (5)

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That research interests in the Pacific area, including the Far East and Asia, are to be administered from a newly established National Institutes of Health Office in Tokyo? The headquarters, a branch of the NIH Office of International Research (OIR) will also have representation in New Delhi.

The new operation, designated as the Pacific Office, is the third overseas extension of NIH. There is already a European office in Paris and a Latin American office in Rio de Janeiro. (6)

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...activities planned for FY 1963 and operations during the past year are summarized in the Fifth Annual Report of the Armed Forces Pest Control Board (Forest Glen Section, Walter Reed Army Medical Center, Washington 12, D.C.). The Board was established by DOD Directive 5154.12 (OASD-H&M) in November 1956.

—PDC Newsletter VI(2):3, 3 Jan 1963

**RESERVE****SECTION**

Tax Deductions Allowed  
for USNR Participation

Concerned about your federal income tax? If you've been taking an active part in the Naval Reserve program, you may be in line for additional tax deductions.

Reservists who are serving on inactive duty may deduct transportation costs involved in attending drills; they may also deduct amounts spent for the purchase and maintenance of uniforms.

Here is a rundown on tax deductions for Reservists:

Transportation and Travel Expenses.

All travel and transportation allowances paid by the Navy Department when you are in a mileage or per diem status are considered to have been accounted for to your employer.

If you broke even—or if you do not choose to deduct excess expenses—you may simply answer "yes" to the questions relating to expense accounts on page 2, Form 1040, or check item 8, page 1, Form 1040A, and forget the matter.

On the other hand, if allowances exceeded expenses, you should answer "yes" to the questions on page 2 of Form 1040, and enter the excess—labeled "excess reimbursements"—as "wages."

If you claim excess expenses—or if no allowances were authorized—all allowances, reimbursements and expenses must be listed. The excess expenses are computed on IRS Form 2106 and deducted from your Navy pay, if any, before entering your net wages or expenses as "wages" on page 1 of Form 1040.

"Travel expenses" include meals and lodging of Reservists who, under competent orders and with or without compensation, are required to remain away from their principal place of business overnight in the performance of authorized drills and training duty.

Reservists required to work and drill on the same day at each of two different locations within the same city or general area may deduct one-way "transportation expenses" in going from one place of business to another. When they return home before drills, one-way expenses from home to place of drill, not to exceed expenses from place of work to place of drill, may be deducted.

Round-trip transportation expenses are deductible when the duty area is situated beyond the city or general area which constitutes the principal place of business, provided free transportation between these locations is not furnished by the Navy.



Expenses of an automobile would ordinarily include such items as gasoline, oil, minor repairs, depreciation and the like. If you keep a record of all automobile expenses for the year, you can easily determine the amount of deduction for your drill trips. One way to do this is to take the ratio of the total mileage of your drill trips to the total mileage for the year, and apply that percentage to your total expenses for the year.

However, the Internal Revenue Service has accepted a reasonable rate-per-mile in lieu of actual automobile costs under certain circumstances—up to seven or eight cents per mile. This is a "rule of thumb" practice, however, and has no basis in law or regulation.

#### Uniform Costs.

You may deduct unreimbursed amounts spent for the purchase and maintenance of uniforms for federal income tax purposes. The deductions vary according to whether you are on inactive duty or extended active duty.

An Internal Revenue Service ruling states that the deduction is allowed as an "ordinary and necessary business expense" when uniforms are required and allowed to be worn only when on active duty for training for temporary periods, when attending service school courses and training assemblies (drills).

If you are on inactive duty, you may deduct not only the cost of uniforms required for training duty and drills, but the maintenance costs of these uniforms. However, if you receive a uniform gratuity, your expenses are deductible only to the extent that they exceed your uniform gratuity in that particular year.

For example, you may deduct the cost—purchase price and maintenance—of uniforms bought in 1962, when you file your 1962 federal income tax return. If you received a uniform gratuity of, say, \$100, and the cost and maintenance of your uniforms amounted to \$175, you may deduct \$75 on page 2 of your tax return (Form 1040). If you received no uniform gratuity in 1962, you may deduct the entire sum—in this example, \$175. A uniform gratuity received in a year is nontaxable and need not be considered, except as an offset against uniform expenses incurred during that same year.

(Reservists serving on full-time active duty may only deduct the cost of all items of insignia denoting rank and corps.)

You can find additional information on income tax deductions in the pamphlet, Federal Income Tax Information for Service Personnel, prepared annually by the Judge Advocate General. Copies of this publication should be available at your Naval Reserve training center or the nearest naval activity.

If you were released to inactive duty, and have since lost or misplaced your Withholding Tax Statement (Form W-2), you may request a copy of this form from the Commanding Officer, U. S. Navy Finance Center, Cleveland 14, Ohio. Be sure to give place and date of separation, service number, and any other information which will enable the Finance Center to locate your account.

The Naval Reservist - NAVPERS 15653  
February 1963

Reservists Invited to Join  
Naval Historical Foundation

If you're interested in naval history, now is a good time to take a look at the operations of the Naval Historical Foundation.

The Foundation is a private, nonprofit, self-supporting, nongovernmental organization, dedicated to the preservation of the nation's heritage of maritime history and tradition. It tries to clarify the significance of sea-power, including all its merchant and naval components, for the general public. The Foundation collects and preserves materials, including pictures, relics, manuscripts, and books. It also reproduces and distributes naval historical material.

One of the main functions of the Foundation is the operation of the Truxtun-Decatur Naval Museum, located at 1610 H Street NW., Washington, D. C.

The Foundation receives its financial support chiefly from a dues-paying membership.

Reservists are invited to join the Foundation. Additional information concerning membership may be obtained by writing to the Naval Historical Foundation, c/o Navy Department, Washington 25, D. C.

The Naval Reservist - NAVPERS 15653  
February 1963

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NAVY DEPARTMENT  
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